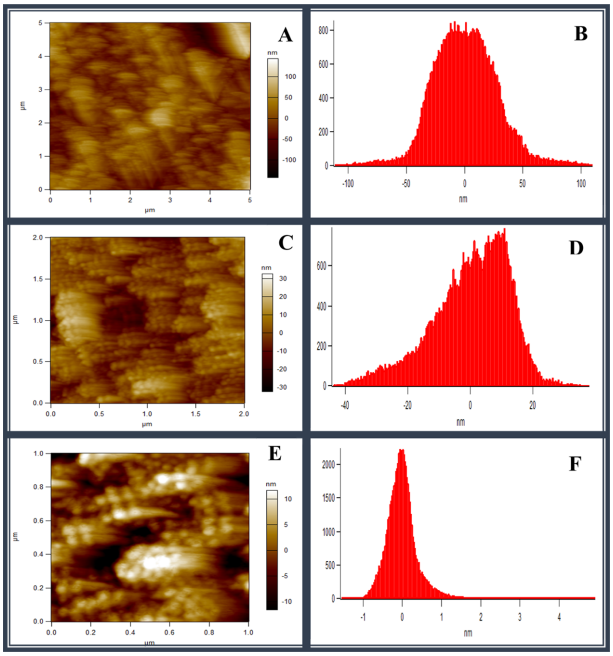


**Fig. S5.** Shows the AFM images and histogram diagram of isolated NiNCs in [A & B] methanol-water, [C & D] acetone-water and [E & F] methanol-acetone-water system respectively.

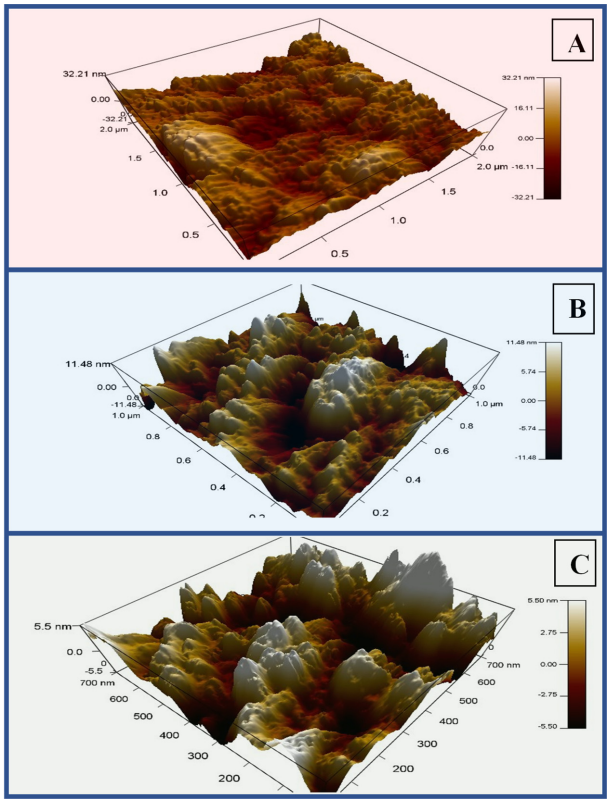


**Fig. S6.** Shows the AFM 3D images of isolated NiNCs [A] methanol: water, [B] acetone: water [C] methanol: acetone: water respectively.